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HAROLD LEGGETT, PH.D.
SECRETARY

State of Louisiana
DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL SERVICES

Certified Mail No.:

Activity No.: PER20080001
Agency Interest No.: 145722

Mr. Richard Clement
J-W Operating Company
Post Office Box 8488
Longview, Texas 75607

RE: Permit Modification, Section 7 Compressor Site, J-W Operating Company, Caspiana, Caddo Parish, Louisiana

Dear Mr. Clement:

This is to inform you that the permit modification for the above referenced facility has been approved under LAC 33:III.501. The submittal was approved on the basis of the emissions reported and the approval in no way guarantees the design scheme presented will be capable of controlling the emissions as to the types and quantities stated. A new application must be submitted if the reported emissions are exceeded after operations begin. The synopsis, data sheets, and conditions are attached herewith.

It will be considered a violation of the permit if all proposed control measures and/or equipment are not installed and properly operated and maintained as specified in the application.

Also enclosed is a document entitled "General Information." Please be advised that this document contains a summary of facility-level information contained in LDEQ's TEMPO database and is not considered a part of the permit. Please review the information contained in this document for accuracy and completeness. If any changes are required or if you have questions regarding this document, you may contact Mr. David Ferrand, Environmental Assistance Division, at (225) 219-3247 or email your changes to facupdate@la.gov.

The permit number cited below and agency interest number cited above should be referenced in future correspondence regarding this facility.

Done this _____ day of _____, 2008.

Permit No.: 0500-00213-02

Sincerely,

Cheryl Sonnier Nolan
Assistant Secretary

**AIR PERMIT BRIEFING SHEET
AIR PERMITS DIVISION
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Section 7 Compressor Site
Agency Interest No.: 145722
J-W Operating Company
Caspiana, Caddo Parish, Louisiana**

I. BACKGROUND

J-W Operating Company, Section 7 Compressor Site, an existing facility began operation in 2006. Permit No. 0500-00213-00 was issued on November 3, 2006. Currently, the facility is operating under Permit No. 0500-00213-01, issued November 14, 2007.

II. ORIGIN

A permit application dated June 3, 2008 was received requesting a permit modification. Additional information dated June 11, 2008 was also received.

III. DESCRIPTION

J-W Operating Company constructed the Section 7 Compressor Site near Caspiana in Caddo Parish. At the site, the production stream flows to a separator where gas and liquids are separated. The gas will be compressed using two compressors driven by two 1340 horsepower engines and then dehydrated prior to sales. Liquids from the separator will be stored before being shipped out by tank truck.

In this permit modification, J-W Operating Company proposes to add two 1340 horsepower natural gas-fired compressor engines with catalytic converters (EPNs C4 and C5).

Permitted emissions in tons per year (TPY) are as follows:

Pollutant	Before	After	Change
PM ₁₀	0.02	0.02	-
SO ₂	0.09	0.15	+ 0.06
NO _x	58.47	97.25	+ 38.78
CO	73.93	77.35	+3.42
VOC	18.26	26.28	+ 8.02

<u>LAC 33:III. Chapter 51 Toxic Air Pollutants TAP's</u>	<u>Emissions (TPY)</u>
Benzene	0.17
Ethyl benzene	0.01
n-Hexane	0.10
Toluene	0.22
Xylene	0.06
Formaldehyde	7.65
Total TAPs	8.21
Other VOC	18.07
Total VOC	26.28

**AIR PERMIT BRIEFING SHEET
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**Section 7 Compressor Site
Agency Interest No.: 145722
J-W Operating Company
Caspiana, Caddo Parish, Louisiana**

The facilities within $\frac{1}{4}$ mile radius of the Section 7 Compressor Site are Frierson 6 #5, Frierson 6 #10, C- Frierson 12 #1 and C- Frierson 12 #2.

Estimated emissions from each location, as well as the combined total emissions from these facilities, in tons per year, are as below:

	Agency Interest No.	PM ₁₀	SO ₂	NOx	CO	VOC
Frierson 6 #5	Under Act 918	-	-	-	-	0.11
Frierson 6 #10	Not Drilled	-	-	-	-	-
C- Frierson 12 #1	Under Act 918	-	-	-	-	0.11
C- Frierson 12 #2	Under Act 918	-	-	-	-	0.11
Section 7 Compressor Site	145722	0.02	0.15	97.25	77.35	26.28
Total		0.02	0.15	97.25	77.35	26.61

IV. TYPE OF REVIEW

This application was reviewed for compliance with the Louisiana Air Quality Regulations, NESHAP. Louisiana Part 70 operating permit program, NSPS and PSD do not apply.

This facility is a minor source of LAC 33:III.Chapter 51 Toxic Air Pollutants (TAPs) and an area source of 40 CFR 63 Subpart HH Hazardous Air Pollutants (TAPs).

V. PUBLIC NOTICE

A notice requesting public comment on the permit was published in *The Advocate*, Baton Rouge, and in the *Plaquemines Gazette*, Port Sulphur, Louisiana on XXXX, 2008, and was mailed to concerned citizens listed in the Office of Environmental Services Public Notice Mailing List on XXX, 2008. The permit application and the proposed permit were submitted to the Plaquemines Parish Library – Belle Chasse Branch. No comments were received.

VI. EFFECTS ON AMBIENT AIR

Emissions associated with the proposed modification were reviewed by the Air Quality Assessment Division to ensure compliance with the NAAQS and AAS. LDEQ did not require the applicant to model emissions.

**AIR PERMIT BRIEFING SHEET
AIR PERMITS DIVISION
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Section 7 Compressor Site
Agency Interest No.: 145722
J-W Operating Company
Caspiana, Caddo Parish, Louisiana**

Dispersion Model(s) Used: <None>

Pollutant	Time Period	Calculated Maximum Ground Level Concentration	Louisiana Ambient Air Quality Standard (NAAQS)

VII. GENERAL CONDITION XVII ACTIVITIES

Work Activity	Schedule	Emission Rates - tons			
		PM ₁₀	SO ₂	NOx	CO
NA					VOC

VIII. INSIGNIFICANT ACTIVITIES

ID No.:	Description	Citation
NA		

**LOUISIANA AIR EMISSION PERMIT
GENERAL CONDITIONS**

- I. This permit is issued on the basis of the emissions reported in the application for approval of emissions and in no way guarantees that the design scheme presented will be capable of controlling the emissions to the type and quantities stated. Failure to install, properly operate and/or maintain all proposed control measures and/or equipment as specified in the application and supplemental information shall be considered a violation of the permit and LAC 33:III.501. If the emissions are determined to be greater than those allowed by the permit (e.g. during the shakedown period for new or modified equipment) or if proposed control measures and/or equipment are not installed or do not perform according to design efficiency, an application to modify the permit must be submitted. All terms and conditions of this permit shall remain in effect unless and until revised by the permitting authority.
- II. The permittee is subject to all applicable provisions of the Louisiana Air Quality Regulations. Violation of the terms and conditions of the permit constitutes a violation of these regulations.
- III. The Emission Rates for Criteria Pollutants, Emission Rates for TAP/HAP & Other Pollutants, and Specific Requirements sections or, where included, Emission Inventory Questionnaire sheets establish the emission limitations and are a part of the permit. Any operating limitations are noted in the Specific Requirements or, where included, Tables 2 and 3 of the permit. The synopsis is based on the application and Emission Inventory Questionnaire dated June 3, 2008, along with supplemental information dated June 11, 2008.
- IV. This permit shall become invalid, for the sources not constructed, if:
 - A. Construction is not commenced, or binding agreements or contractual obligations to undertake a program of construction of the project are not entered into, within two (2) years (18 months for PSD permits) after issuance of this permit, or;
 - B. If construction is discontinued for a period of two (2) years (18 months for PSD permits) or more.The administrative authority may extend this time period upon a satisfactory showing that an extension is justified.
This provision does not apply to the time period between construction of the approved phases of a phased construction project. However, each phase must commence construction within two (2) years (18 months for PSD permits) of its projected and approved commencement date.
- V. The permittee shall submit semiannual reports of progress outlining the status of construction, noting any design changes, modifications or alterations in the construction schedule which have or may have an effect on the emission rates or ambient air quality levels. These reports shall continue to be submitted until such time as construction is certified as being complete. Furthermore, for any significant change in the design, prior approval shall be obtained from the Office of Environmental Services, Air Permits Division.
- VI. The permittee shall notify the Department of Environmental Quality, Office of Environmental Services, Air Permits Division within ten (10) calendar days from the date that construction is certified as complete and the estimated date of start-up of operation. The appropriate Regional Office shall also be so notified within the same time frame.

**LOUISIANA AIR EMISSION PERMIT
GENERAL CONDITIONS**

- VII. Any emissions testing performed for purposes of demonstrating compliance with the limitations set forth in paragraph III shall be conducted in accordance with the methods described in the Specific Conditions and, where included, Tables 1, 2, 3, 4, and 5 of this permit. Any deviation from or modification of the methods used for testing shall have prior approval from the Office of Environmental Assessment, Air Quality Assessment Division.
- VIII. The emission testing described in paragraph VII above, or established in the specific conditions of this permit, shall be conducted within sixty (60) days after achieving normal production rate or after the end of the shakedown period, but in no event later than 180 days after initial start-up (or restart-up after modification). The Office of Environmental Assessment, Air Quality Assessment Division shall be notified at least (30) days prior to testing and shall be given the opportunity to conduct a pretest meeting and observe the emission testing. The test results shall be submitted to the Air Quality Assessment Division within sixty (60) days after the complete testing. As required by LAC 33:III.913, the permittee shall provide necessary sampling ports in stacks or ducts and such other safe and proper sampling and testing facilities for proper determination of the emission limits.
- IX. The permittee shall, within 180 days after start-up and shakedown of each project or unit, report to the Office of Environmental Compliance, Enforcement Division any significant difference in operating emission rates as compared to those limitations specified in paragraph III. This report shall also include, but not be limited to, malfunctions and upsets. A permit modification shall be submitted, if necessary, as required in Condition I.
- X. The permittee shall retain records of all information resulting from monitoring activities and information indicating operating parameters as specified in the specific conditions of this permit for a minimum of at least five (5) years.
- XI. If for any reason the permittee does not comply with, or will not be able to comply with, the emission limitations specified in this permit, the permittee shall provide the Office of Environmental Compliance, Enforcement Division with a written report as specified below.
 - A. A written report shall be submitted within 7 days of any emission in excess of permit requirements by an amount greater than the Reportable Quantity established for that pollutant in LAC 33.I.Chapter 39.
 - B. A written report shall be submitted within 7 days of the initial occurrence of any emission in excess of permit requirements, regardless of the amount, where such emission occurs over a period of seven days or longer.
 - C. A written report shall be submitted quarterly to address all emission limitation exceedances not included in paragraphs A or B above. The schedule for submittal of quarterly reports shall be no later than the dates specified below for any emission limitation exceedances occurring during the corresponding specified calendar quarter:
 - 1. Report by June 30 to cover January through March
 - 2. Report by September 30 to cover April through June
 - 3. Report by December 31 to cover July through September
 - 4. Report by March 31 to cover October through December

**LOUISIANA AIR EMISSION PERMIT
GENERAL CONDITIONS**

- D. Each report submitted in accordance with this condition shall contain the following information:
1. Description of noncomplying emission(s);
 2. Cause of noncompliance;
 3. Anticipated time the noncompliance is expected to continue, or if corrected, the duration of the period of noncompliance;
 4. Steps taken by the permittee to reduce and eliminate the noncomplying emissions; and
 5. Steps taken by the permittee to prevent recurrences of the noncomplying emissions.
- E. Any written report submitted in advance of the timeframes specified above, in accordance with an applicable regulation, may serve to meet the reporting requirements of this condition provided all information specified above is included. For Part 70 sources, reports submitted in accordance with Part 70 General Condition R shall serve to meet the requirements of this condition provided all specified information is included. Reporting under this condition does not relieve the permittee from the reporting requirements of any applicable regulation, including LAC 33.I.Chapter 39, LAC 33.III.Chapter 9, and LAC 33.III.5107.

- XII. Permittee shall allow the authorized officers and employees of the Department of Environmental Quality, at all reasonable times and upon presentation of identification, to:
- A. Enter upon the permittee's premises where regulated facilities are located, regulated activities are conducted or where records required under this permit are kept;
 - B. Have access to and copy any records that are required to be kept under the terms and conditions of this permit, the Louisiana Air Quality Regulations, or the Act;
 - C. Inspect any facilities, equipment (including monitoring methods and an operation and maintenance inspection), or operations regulated under this permit; and
 - D. Sample or monitor, for the purpose of assuring compliance with this permit or as otherwise authorized by the Act or regulations adopted thereunder, any substances or parameters at any location.
- XIII. If samples are taken under Section XII.D. above, the officer or employee obtaining such samples shall give the owner, operator or agent in charge a receipt describing the sample obtained. If requested prior to leaving the premises, a portion of each sample equal in volume or weight to the portion retained shall be given to the owner, operator or agent in charge. If an analysis is made of such samples, a copy of the analysis shall be furnished promptly to the owner, operator or agency in charge.
- XIV. The permittee shall allow authorized officers and employees of the Department of Environmental Quality, upon presentation of identification, to enter upon the permittee's premises to investigate potential or alleged violations of the Act or the rules and regulations adopted thereunder. In such investigations, the permittee shall be notified at the time entrance is requested of the nature of the suspected violation. Inspections under this subsection shall be limited to the aspects of alleged violations. However, this shall not in any way preclude prosecution of all violations found.

**LOUISIANA AIR EMISSION PERMIT
GENERAL CONDITIONS**

- XV. The permittee shall comply with the reporting requirements specified under LAC 33:III.919 as well as notification requirements specified under LAC 33:III.927.
- XVI. In the event of any change in ownership of the source described in this permit, the permittee and the succeeding owner shall notify the Office of Environmental Services in accordance with LAC 33:I.Chapter 19.Facility Name and Ownership/Operator Changes Process.
- XVII. Very small emissions to the air resulting from routine operations, that are predictable, expected, periodic, and quantifiable and that are submitted by the permitted facility and approved by the Air Permits Division are considered authorized discharges. Approved activities are noted in the General Condition XVII Activities List of this permit. To be approved as an authorized discharge, these very small releases must:
1. Generally be less than 5 TPY
 2. Be less than the minimum emission rate (MER)
 3. Be scheduled daily, weekly, monthly, etc., or
 4. Be necessary prior to plant startup or after shutdown [line or compressor pressuring/depressuring for example]

These releases are not included in the permit totals because they are small and will have an insignificant impact on air quality. This general condition does not authorize the maintenance of a nuisance, or a danger to public health and safety. The permitted facility must comply with all applicable requirements, including release reporting under LAC 33:I.3901.

- XVIII. Provisions of this permit may be appealed in writing pursuant to La. R.S. 30:2024(A) within 30 days from receipt of the permit. Only those provisions specifically appealed will be suspended by a request for hearing, unless the secretary or the assistant secretary elects to suspend other provisions as well. Construction cannot proceed except as specifically approved by the secretary or assistant secretary. A request for hearing must be sent to the following:

Attention: Office of the Secretary, Legal Services Division
La. Dept. of Environmental Quality
Post Office Box 4302
Baton Rouge, Louisiana 70821-4302

- XIX. For Part 70 sources, certain Part 70 general conditions may duplicate or conflict with state general conditions. To the extent that any Part 70 conditions conflict with state general conditions, then the Part 70 general conditions control. To the extent that any Part 70 general conditions duplicate any state general conditions, then such state and Part 70 provisions will be enforced as if there is only one condition rather than two conditions.

General Information

AI ID: 145722 Section 7 Compressor Site
Activity Number: PER20080001
Permit Number: 0500-00213-02
Air - Minor (Synthetic) Modification

Also Known As:	Name	User Group	Start Date
0500-00213	Section 7 Compressor Site	CDS Number	10-10-2006
	Section 7 Compressor Site	Multimedia	12-01-2007
	J-W Operating Co	Multimedia	10-10-2006
Physical Location:	5.84 Mi W of Caspiana, LA 70000	Main FAX: 9036433586	
Mailing Address:	PO Box 8487 Longview, TX 756078487	Main Phone: 9032912816	
Location of Front Gate:	32° 18' 34" 0 hundredths latitude, 93° 38' 44" 0 hundredths longitude. Coordinate Method: GPS-Unspecified. Coordinate Datum: NAD83	Relationship	
Related People:	Name	Mailing Address	Phone (Type)
	Richard Clement	PO Box 8488 Longview, TX 756078488	9032912810 (VNP)
	Richard Clement	PO Box 8488 Longview, TX 756078488	9032912810 (VNP)
Related Organizations:	Name	Address	Relationship
	J-W Operating Co	PO Box 8488 Longview, TX 756078488	Operates
	J-W Operating Co	PO Box 8488 Longview, TX 756078488	Owns
	J-W Operating Co	PO Box 8488 Longview, TX 756078488	Air Billing Party for

Note: This report entitled "General Information" contains a summary of facility-level information contained in LDEQ's TEMPO database for this facility and is not considered a part of the permit. Please review the information contained in this document for accuracy and completeness. If any changes are required or if you have questions regarding this document, you may contact Mr. David Ferrand, Environmental Assistance Division, at (225) 219-3247 or email your changes to facupdate@louisiana.gov.

INVENTORIES

AI ID: 145722 - Section 7 Compressor Site
 Activity Number: PER20080001
 Permit Number: 0500-00213-02
 Air - Minor (Synthetic) Modification

Subject Item Inventory:

ID	Description	Tank Volume	Max. Operating Rate	Normal Operating Rate	Contents	Operating Time
Bass Frierson No. 1 Compressor Site						
EQT0001	C1 - Natural Gas Compressor Engine	1340 horsepower	1340 horsepower	1340 horsepower		8760 hr/yr (All Year)
EQT0002	C2 - Natural Gas Compressor Engine	1340 horsepower	1340 horsepower	1340 horsepower		8760 hr/yr (All Year)
EQT0003	D1a - Dehydrator Reboiler	.75 MM BTU/hr	.75 MM BTU/hr	.75 MM BTU/hr		8760 hr/yr (All Year)
EQT0004	D1b - Dehydrator Still Column Vent / Condenser	75 MM ft^3/day	27 MM ft^3/day	27 MM ft^3/day		2.43 hr/yr (All Year)
EQT0006	EQ1 - Tank Truck Loading Losses					8760 hr/yr (All Year)
EQT0007	C3 - Natural Gas Compressor Engine	1340 horsepower	1340 horsepower	1340 horsepower		8760 hr/yr (All Year)
EQT0008	T2 - Condensate Tank	300 bbl				8760 hr/yr (All Year)
EQT0009	C4 - Natural Gas Compressor Engine	1340 horsepower	1340 horsepower	1340 horsepower		8760 hr/yr (All Year)
EQT0010	C5 - Natural Gas Compressor Engine	1340 horsepower	1340 horsepower	1340 horsepower		8760 hr/yr (All Year)
FUG0001	F1 - Facility Fugitives					8760 hr/yr (All Year)

Stack Information:

ID	Description	Velocity (ft/sec)	Flow Rate (cubic ft/min-actual)	Diameter (feet)	Discharge Area (square feet)	Height (feet)	Temperature (oF)
Bass Frierson No. 1 Compressor Site							
EQT0001	C1 - Natural Gas Compressor Engine	190.3	7684	.85		4	855
EQT0002	C2 - Natural Gas Compressor Engine	190.3	7684	.85		4	855
EQT0003	D1a - Dehydrator Reboiler			.5		4	800
EQT0004	D1b - Dehydrator Still Column Vent / Condenser			.17		9	200
EQT0007	C3 - Natural Gas Compressor Engine	190.3	7684	.85		15	855
EQT0009	C4 - Natural Gas Compressor Engine		7651	.85		15	854
EQT0010	C5 - Natural Gas Compressor Engine		7651	.85		15	854

Relationships:

Subject Item Groups:

ID	Group Type	Group Description
UNF0001	Unit or Facility Wide	-

Group Membership:

Annual Maintenance Fee:

Fee Number	Air Contaminant Source	Multiplier	Units Of Measure
0041	Crude Oil and Natural Gas Production (equal to or greater than 100 T/Yr Source) T/Yr and less than 250 T/Yr Source)	1	

NOTE: The UNF group relationship is not printed in this table. Every subject item is a member of the UNF group

INVENTORIES

AI ID: 145722 - Section 7 Compressor Site
Activity Number: PER20080001
Permit Number: 0500-00213-02
Air - Minor (Synthetic) Modification

SIC Codes:	
1311	Crude petroleum and natural gas

EMISSION RATES FOR CRITERIA POLLUTANTS

AI ID: 145722 - Section 7 Compressor Site
 Activity Number: PER2008001
 Permit Number: 0500-00213-02
 Air - Minor (Synthetic) Modification

Subject Item	CO			NOx			PM10			SO2			VOC		
	Avg lb/hr	Max lb/hr	Tons/Year												
Bass Frierson No. 1 Compressor Site															
EQT 0001	5.61	5.61	24.56	4.43	4.43	19.39	<0.01	<0.01	0.01	0.01	0.03	0.19	1.19	1.19	5.22
C ₁															
EQT 0002	5.61	5.61	24.56	4.43	4.43	19.39	<0.01	<0.01	0.01	0.01	0.03	1.19	1.19	1.19	5.22
C ₂															
EQT 0003	0.06	0.06	0.25	0.07	0.07	0.30	0.01	0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	0.02
D _{1a}															
EQT 0004															
D _{1b}															
EQT 0006															
Load															
EQT 0007	5.61	5.61	24.56	4.43	4.43	19.39	<0.01	<0.01	0.01	0.01	0.03	1.19	1.19	1.19	5.22
C ₃															
EQT 0008															
T ₂															
EQT 0009	0.39	0.39	1.71	4.43	4.43	19.39	<0.01	<0.01	0.01	0.01	0.03	0.91	0.91	0.91	4.01
C ₄															
EQT 0010	0.39	0.39	1.71	4.43	4.43	19.39	<0.01	<0.01	0.01	0.01	0.03	0.91	0.91	0.91	4.01
C ₅															
FUG 0001															
F ₁															

Note: Emission rates in bold are from alternate scenarios and are not included in permitted totals unless otherwise noted in a footnote.

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 145722 - Section 7 Compressor Site

Activity Number: PER20080001

Permit Number: 0500-00213-02

Air - Minor (Synthetic) Modification

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0001 C1	Ethyl benzene	< 0.001	< 0.001	0.002
	Formaldehyde	0.53	0.53	2.34
	Toluene	0.004	0.004	0.02
	Xylene (mixed isomers)	0.002	0.002	0.01
EQT 0002 C2	Ethyl benzene	< 0.001	< 0.001	0.002
	Formaldehyde	0.53	0.53	2.34
	Toluene	0.004	0.004	0.02
	Xylene (mixed isomers)	0.002	0.002	0.01
EQT 0003 D1a	n-Hexane	< 0.001	< 0.001	0.01
EQT 0004 D1b	Benzene	0.03	0.03	0.13
	Ethyl benzene	< 0.01	< 0.01	< 0.01
	Toluene	0.03	0.03	0.12
	Xylene (mixed isomers)	< 0.001	< 0.001	0.01
	n-Hexane	< 0.01	< 0.01	0.01
EQT 0006 Load	Benzene	0.02	0.02	< 0.001
	Ethyl benzene	0.01	0.01	< 0.001
	Toluene	0.05	0.05	< 0.001
	Xylene (mixed isomers)	0.02	0.02	< 0.001
	n-Hexane	1.69	1.69	< 0.01
EQT 0007 C3	Ethyl benzene	< 0.001	< 0.001	0.002
	Formaldehyde	0.53	0.53	2.34
	Toluene	0.004	0.004	0.02
	Xylene (mixed isomers)	0.002	0.002	0.01
EQT 0008 T2	Benzene	0.001	0.001	0.003
	Ethyl benzene	< 0.001	< 0.001	0.001
	Toluene	0.001	0.001	0.004
	Xylene (mixed isomers)	< 0.001	< 0.001	0.002
	n-Hexane	< 0.01	< 0.01	0.02
EQT 0009 C4	Benzene	< 0.01	< 0.01	0.02
	Ethyl benzene	< 0.01	< 0.01	< 0.01
	Formaldehyde	0.07	0.07	0.32
	Toluene	< 0.01	< 0.01	0.02
	Xylene (mixed isomers)	< 0.01	< 0.01	0.01
EQT 0010 C5	Benzene	< 0.01	< 0.01	0.02

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 145722 - Section 7 Compressor Site

Activity Number: PER20080001

Permit Number: 0500-00213-02

Air - Minor (Synthetic) Modification

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0010 C5	Ethyl benzene	< 0.01	< 0.01	< 0.01
	Formaldehyde	0.07	0.07	0.32
	Toluene	< 0.01	< 0.01	0.02
	Xylene (mixed isomers)	< 0.01	< 0.01	0.01
FUG 0001 F1	n-Hexane	0.02	0.02	0.07
UNF 0001	Benzene			0.17
	Ethyl benzene			0.01
	Formaldehyde			7.65
	Toluene			0.22
	Xylene (mixed isomers)			0.06
	n-Hexane			0.10

Note: Emission rates in bold are from alternate scenarios and are not included in permitted totals unless otherwise noted in a footnote. Emission rates attributed to the UNF reflect the sum of the TAP/HAP limits of the individual emission points (or caps) under this permit, but do not constitute an emission cap.

SPECIFIC REQUIREMENTS

AI ID: 145722 - Section 7 Compressor Site
Activity Number: PER20080001
Permit Number: 0500-00213-02
Air - Minor (Synthetic) Modification

EQT0001 C1 - Natural Gas Compressor or Engine

- 1 [LAC 33:III.101.B] Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes (Complies by using sweet natural gas as fuel).
- Which Months: All Year Statistical Basis: None specified
 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes (Complies by using sweet natural gas as fuel).
- Which Months: All Year Statistical Basis: Six-minute average
 Conduct a performance/emissions test: Due within 180 days after initial startup (or restart-up after modification), or within 60 days after achieving normal production rate or end of the shakedown period, whichever is earliest. The stack test's purpose is to demonstrate compliance with the emission limits of this permit. Repeat the test after each major engine overhaul. Test methods and procedures shall be in accordance with New Source Performance Standards, 40 CFR 60, Appendix A, Method 7E - Determination of Nitrogen Oxides Emissions from Stationary Sources and Method 10 - Determination of Carbon Monoxide Emissions from Stationary Sources. Use alternate stack test methods only with the prior approval of the Office of Environmental Assessment, Environmental Technology Division, Engineering Services. As required by LAC 33:III.913, provide necessary sampling ports in stacks or ducts and such other safe and proper sampling and testing facilities for proper determination of the emission limits.
- Equipment/operational data recordkeeping by electronic or hard copy semiannually. Recorded parameters are NOx, CO and O2 concentrations in the stack gas obtained during semiannual testing.
- Stack gas concentration: Carbon monoxide monitored by portable analyzer semiannually (six months after the stack test or previous semiannual test, plus or minus 30 days). Maintain concentrations of CO in the same range as during the initial stack test. Calibrate portable analyzers before each test using a known reference gas sample.
- Which Months: All Year Statistical Basis: None specified
 Stack gas concentration: Nitrogen oxides monitored by portable analyzer semiannually (six months after the stack test or previous semiannual test, plus or minus 30 days). Maintain concentrations of NOx in the same range as during the initial stack test. Calibrate portable analyzers before each test using a known reference gas sample.
- Which Months: All Year Statistical Basis: None specified
 Stack gas concentration: Oxygen monitored by portable analyzer semiannually (six months after the stack test or previous semiannual test, plus or minus 30 days). Maintain concentrations of O2 in the same range as during the initial stack test. Calibrate portable analyzers before each test using a known reference gas sample.
- Which Months: All Year Statistical Basis: None specified
 Submit notification: Due at least 30 days prior to performance/emissions test to the Office of Environmental Assessment, Environmental Technology Division, Engineering Services, to provide the opportunity to conduct a pretest meeting and observe the emission testing.
- Submit report: Due within 60 days after performance/emissions test. Submit emissions test results to the Office of Environmental Assessment, Environmental Technology Division, Engineering Services.

EQT0002 C2 - Natural Gas Compressor Engine

SPECIFIC REQUIREMENTS

AI ID: 145722 - Section 7 Compressor Site
 Activity Number: PER20080001
 Permit Number: 0500-00213-02
Air - Minor (Synthetic) Modification

EQT0002 C2 - Natural Gas Compressor Engine

10 [LAC 33:III.1101.B]

Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes (Complies by using sweet natural gas as fuel).

11 [LAC 33:III.1311.C]

Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes (Complies by using sweet natural gas as fuel).

12 [LAC 33:III.501.C.6]

Which Months: All Year Statistical Basis: Six-minute average
 Conduct a performance/emissions test: Due within 180 days after initial startup (or restart-up after modification), or within 60 days after achieving normal production rate or end of the shakedown period, whichever is earliest. The stack test's purpose is to demonstrate compliance with the emission limits of this permit. Repeat the test after each major engine overhaul. Test methods and procedures shall be in accordance with New Source Performance Standards, 40 CFR 60, Appendix A, Method 7E - Determination of Nitrogen Oxides Emissions from Stationary Sources and Method 10 - Determination of Carbon Monoxide Emissions from Stationary Sources. Use alternate stack test methods only with the prior approval of the Office of Environmental Assessment, Environmental Technology Division, Engineering Services. As required by LAC 33:II.913, provide necessary sampling ports in stacks or ducts and such other safe and proper sampling and testing facilities for proper determination of the emission limits.

13 [LAC 33:III.501.C.6]

Equipment/operational data recordkeeping by electronic or hard copy semiannually. Recorded parameters are NOx, CO and O2 concentrations in the stack gas obtained during semiannual testing.
 Stack gas concentration: Carbon monoxide monitored by portable analyzer semiannually (six months after the stack test or previous semiannual test, plus or minus 30 days). Maintain concentrations of CO in the same range as during the initial stack test. Calibrate portable analyzers before each test using a known reference gas sample.

14 [LAC 33:III.501.C.6]

Which Months: All Year Statistical Basis: None specified
 Stack gas concentration: Nitrogen oxides monitored by portable analyzer semiannually (six months after the stack test or previous semiannual test, plus or minus 30 days). Maintain concentrations of NOx in the same range as during the initial stack test. Calibrate portable analyzers before each test using a known reference gas sample.

15 [LAC 33:III.501.C.6]

Which Months: All Year Statistical Basis: None specified
 Stack gas concentration: Oxygen monitored by portable analyzer semiannually (six months after the stack test or previous semiannual test, plus or minus 30 days). Maintain concentrations of O2 in the same range as during the initial stack test. Calibrate portable analyzers before each test using a known reference gas sample.

16 [LAC 33:III.501.C.6]

Which Months: All Year Statistical Basis: None specified
 Submit notification: Due at least 30 days prior to performance/emissions test to the Office of Environmental Assessment, Environmental Technology Division, Engineering Services, to provide the opportunity to conduct a pretest meeting and observe the emission testing.
 Submit report: Due within 60 days after performance/emissions test. Submit emissions test results to the Office of Environmental Assessment, Environmental Technology Division, Engineering Services.

EQT0003 D1a - Dehydrator Reboiler

SPECIFIC REQUIREMENTS

AI ID: 145722 - Section 7 Compressor Site
 Activity Number: PER20080001
 Permit Number: 0500-00243-02
 Air - Minor (Synthetic) Modification

EQT0003 D1a - Dehydrator Reboiler

- Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes (Complies by using sweet natural gas as fuel).
 Which Months: All Year Statistical Basis: None specified
 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes (Complies by using sweet natural gas as fuel).
 Which Months: All Year Statistical Basis: Six-minute average

EQT0004 D1b - Dehydrator Still Column Vent / Condenser

- Maintain records as specified in 40 CFR 63.10(b)(3). Subpart HH. [40 CFR 63.760(e)]
 Equipment/operational data recordkeeping by electronic or hard copy at the approved frequency. Keep records of the information specified in 40 CFR 63.774(d)(1)(i) or (d)(1)(ii), as applicable. Subpart HH. [40 CFR 63.774(d)]
 VOC, Total >= 85 % reduction using a control device. Demonstrate percent reduction using the methods found in LAC 33:II.2|16.D.
 Which Months: All Year Statistical Basis: None specified
 Determine compliance with LAC 33:III.2|116.B using the methods in LAC 33:III.2|116.D.1-5, as appropriate.
 Equipment/operational data recordkeeping by electronic or hard copy upon occurrence of event. Keep records of the information specified in LAC 33:III.2|116.F.1.

EQT0007 C3 - Natural Gas Compressor Engine

- Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes (Complies by using sweet natural gas as fuel).
 Which Months: All Year Statistical Basis: None specified
 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes (Complies by using sweet natural gas as fuel).
 Which Months: All Year Statistical Basis: Six-minute average
 Conduct a performance/emissions test: Due within 180 days after initial startup (or restart-up after modification), or within 60 days after achieving normal production rate or end of the shutdown period, whichever is earliest. The stack test's purpose is to demonstrate compliance with the emission limits of this permit. Repeat the test after each major engine overhaul. Test methods and procedures shall be in accordance with New Source Performance Standards, 40 CFR 60, Appendix A, Method 7E - Determination of Nitrogen Oxides Emissions from Stationary Sources and Method 10 - Determination of Carbon Monoxide Emissions from Stationary Sources. Use alternate stack test methods only with the prior approval of the Office of Environmental Assessment, Environmental Technology Division, Engineering Services. As required by LAC 33:II.9|13, provide necessary sampling ports in stacks or ducts and such other safe and proper sampling and testing facilities for proper determination of the emission limits.
 Equipment/operational data recordkeeping by electronic or hard copy semiannual testing. Recorded parameters are NOx, CO and O2 concentrations in the stack gas obtained during semiannual testing.

SPECIFIC REQUIREMENTS

AI ID: 145722 - Section 7 Compressor Site
Activity Number: PER20080001
Permit Number: 0500-00213-02
Air - Minor (Synthetic) Modification

EQT0007 C3 - Natural Gas Compressor Engine

- 30 [LAC 33:III.501.C.6] Stack gas concentration: Carbon monoxide monitored by portable analyzer semiannually (six months after the stack test or previous semiannual test, plus or minus 30 days). Maintain concentrations of CO in the same range as during the initial stack test. Calibrate portable analyzers before each test using a known reference gas sample.
- Which Months: All Year Statistical Basis: None specified
- 31 [LAC 33:III.501.C.6] Stack gas concentration: Nitrogen oxides monitored by portable analyzer semiannually (six months after the stack test or previous semiannual test, plus or minus 30 days). Maintain concentrations of NOx in the same range as during the initial stack test. Calibrate portable analyzers before each test using a known reference gas sample.
- Which Months: All Year Statistical Basis: None specified
- 32 [LAC 33:III.501.C.6] Stack gas concentration: Oxygen monitored by portable analyzer semiannually (six months after the stack test or previous semiannual test, plus or minus 30 days). Maintain concentrations of O₂ in the same range as during the initial stack test. Calibrate portable analyzers before each test using a known reference gas sample.
- Which Months: All Year Statistical Basis: None specified
- 33 [LAC 33:III.501.C.6] Submit notification: Due at least 30 days prior to performance/emissions test to the Office of Environmental Assessment, Environmental Technology Division, Engineering Services, to provide the opportunity to conduct a pretest meeting and observe the emission testing.
- 34 [LAC 33:III.501.C.6] Submit report: Due within 60 days after performance/emissions test. Submit emissions test results to the Office of Environmental Assessment, Environmental Technology Division, Engineering Services.

EQT0009 C4 - Natural Gas Compressor Engine

- 35 [LAC 33:III.501.C.6] Conduct a performance/emissions test: Due within 180 days after initial startup (or restart-up after modification), or within 60 days after achieving normal production rate or end of the shutdown period, whichever is earliest. The stack test's purpose is to demonstrate compliance with the emission limits of this permit and therefore must be conducted at greater than 80% of maximum permitted capacity. Repeat the test after each major engine overhaul. Test methods and procedures shall be in accordance with New Source Performance Standards, 40 CFR 60, Appendix A, Method 7E - Determination of Nitrogen Oxides Emissions from Stationary Sources and Method 10 - Determination of Carbon Monoxide Emissions from Stationary Sources. Use alternate stack test methods only with the prior approval of the Office of Environmental Assessment, Environmental Technology Division, Engineering Services. As required by LAC 33:III.913, provide necessary sampling ports in stacks or ducts and such other safe and proper sampling and testing facilities for proper determination of the emission limits. Equipment/operational data recordkeeping by electronic or hard copy annually. Recorded parameters are NOx, CO, O₂, SO₂ and VOC concentrations in the stack gas obtained during annual testing.
- Stack gas concentration: Carbon monoxide monitored by portable analyzer annually (twelve months after the stack test or previous annual test, plus or minus 30 days). Maintain concentrations of CO in the same range as during the initial stack test. Calibrate portable analyzers before each test using a known reference gas sample.
- Which Months: All Year Statistical Basis: None specified
- 36 [LAC 33:III.501.C.6] Stack gas concentration: Nitrogen oxides monitored by portable analyzer annually (twelve months after the stack test or previous annual test, plus or minus 30 days). Maintain concentrations of NOx in the same range as during the initial stack test. Calibrate portable analyzers before each test using a known reference gas sample.
- Which Months: All Year Statistical Basis: None specified
- 37 [LAC 33:III.501.C.6] Stack gas concentration: Oxygen monitored by portable analyzer annually (twelve months after the stack test or previous annual test, plus or minus 30 days). Maintain concentrations of O₂ in the same range as during the initial stack test. Calibrate portable analyzers before each test using a known reference gas sample.
- Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS

AI ID: 145722 - Section 7 Compressor Site
Activity Number: PER20080001
Permit Number: 0500-00213-02
Air - Minor (Synthetic) Modification

EQT0009 C4 - Natural Gas Compressor Engine

- 39 [LAC 33:III.501.C.6] Stack gas concentration: Oxygen monitored by portable analyzer annually (twelve months after the stack test or previous annual test, plus or minus 30 days). Maintain concentrations of O₂ in the same range as during the initial stack test. Calibrate portable analyzers before each test using a known reference gas sample.
- Which Months: All Year Statistical Basis: None specified
- 40 [LAC 33:III.501.C.6] Submit notification: Due at least 30 days prior to any LDEQ required performance/emissions test to the Office of Environmental Assessment, to provide the opportunity to conduct a pretest meeting and observe the emission testing.
- 41 [LAC 33:III.501.C.6] Submit report: Due within 60 days after performance/emissions test. Submit emissions test results to the Office of Environmental Assessment. The test results summary shall include any necessary conversion into the units of any applicable Standard. (lbs/MMBtu, gr/dscf, lbs SO₂ / ton 100% H₂SO₄, Etc.) Plant and in house laboratory data to support production values shall be included. (Example: how many tons of 100% equivalent H₂SO₄ was being produced) Units tested at less than 95% of permitted maximum capacity shall provide documentation to support compliance at 100% of the permitted maximum capacity.

EQT0010 C5 - Natural Gas Compressor Engine

- 42 [LAC 33:III.501.C.6] Conduct a performance/emissions test: Due within 180 days after initial startup (or restart-up after modification), or within 60 days after achieving normal production rate or end of the shakedown period, whichever is earliest. The stack test's purpose is to demonstrate compliance with the emission limits of this permit and therefore must be conducted at greater than 80% of maximum permitted capacity. Repeat the test after each major engine overhaul. Test methods and procedures shall be in accordance with New Source Performance Standards, 40 CFR 60 Appendix A, Method 7E - Determination of Nitrogen Oxides Emissions from Stationary Sources and Method 10 - Determination of Carbon Monoxide Emissions from Stationary Sources. Use alternate stack test methods only with the prior approval of the Office of Environmental Assessment, Environmental Technology Division, Engineering Services. As required by LAC 33:III.913, provide necessary sampling ports in stacks or ducts and such other safe and proper sampling and testing facilities for proper determination of the emission limits. Equipment/operational data recordkeeping by electronic or hard copy annually. Recorded parameters are NO_x, CO, O₂, SO₂ and VOC
- Stack gas concentration: Carbon monoxide monitored by portable analyzer annually (twelve months after the stack test or previous annual test, plus or minus 30 days). Maintain concentrations of CO in the same range as during the initial stack test. Calibrate portable analyzers before each test using a known reference gas sample.
- Which Months: All Year Statistical Basis: None specified
- 43 [LAC 33:III.501.C.6] Stack gas concentration: Nitrogen oxides monitored by portable analyzer annually (twelve months after the stack test or previous annual test, plus or minus 30 days). Maintain concentrations of NO_x in the same range as during the initial stack test. Calibrate portable analyzers before each test using a known reference gas sample.
- Which Months: All Year Statistical Basis: None specified
- 44 [LAC 33:III.501.C.6] Stack gas concentration: Oxygen monitored by portable analyzer annually (twelve months after the stack test or previous annual test, plus or minus 30 days). Maintain concentrations of O₂ in the same range as during the initial stack test. Calibrate portable analyzers before each test using a known reference gas sample.
- Which Months: All Year Statistical Basis: None specified
- 45 [LAC 33:III.501.C.6] Stack gas concentration: Nitrogen oxides monitored by portable analyzer annually (twelve months after the stack test or previous annual test, plus or minus 30 days). Maintain concentrations of NO_x in the same range as during the initial stack test. Calibrate portable analyzers before each test using a known reference gas sample.
- Which Months: All Year Statistical Basis: None specified
- 46 [LAC 33:III.501.C.6] Stack gas concentration: Oxygen monitored by portable analyzer annually (twelve months after the stack test or previous annual test, plus or minus 30 days). Maintain concentrations of O₂ in the same range as during the initial stack test. Calibrate portable analyzers before each test using a known reference gas sample.
- Which Months: All Year Statistical Basis: None specified
- 47 [LAC 33:III.501.C.6] Submit notification: Due at least 30 days prior to any LDEQ required performance/emissions test to the Office of Environmental Assessment, to provide the opportunity to conduct a pretest meeting and observe the emission testing.

SPECIFIC REQUIREMENTS

AI ID: 145722 - Section 7 Compressor Site
Activity Number: PER20080001
Permit Number: 0500-00213-02
Air - Minor (Synthetic) Modification

C5 - Natural Gas Compressor Engine

EQT0010 [LAC 33:III.501.C.6]

48 [40 CFR 63.]

49 [LAC 33:III.1103]

50 [LAC 33:III.1103]

51 [LAC 33:III.1109.B]

52 [LAC 33:III.1303.B]

53 [LAC 33:III.2113.A]

54 [LAC 33:III.219]

55 [LAC 33:III.501.C.6]

56 [LAC 33:III.501.C.6]

57 [LAC 33:III.501.C.6]

58 [LAC 33:III.517.B.1]

59 [LAC 33:III.517.C]

60 [LAC 33:III.5611.A]

61 [LAC 33:III.5611.B]

Submit report: Due within 60 days after performance/emissions test. Submit emissions test results to the Office of Environmental Assessment. The test results summary shall include any necessary conversion into the units of any applicable Standard. (lbs/MMBtu, gr/dscf, lbs SO₂ / ton 100% H₂SO₄, Etc.) Plant and in house laboratory data to support production values shall be included. (Example: how many tons of 100% equivalent H₂SO₄ was being produced) Units tested at less than 95% of permitted maximum capacity shall provide documentation to support compliance at 100% of the permitted maximum capacity.

Bass Frieron No. 1 Compressor Site

- All affected facilities shall comply with all applicable provisions in 40 CFR 63 Subpart A as delineated in Table 2 of 40 CFR 63 Subpart HH.
- Emissions of smoke which pass onto or across a public road and create a traffic hazard by impairment of visibility as defined in LAC 33:III.111 or intensify an existing traffic hazard condition are prohibited.
- Outdoor burning of waste material or other combustible material is prohibited.
- Emissions of particulate matter which pass onto or across a public road and create a traffic hazard by impairment of visibility or intensify an existing traffic hazard condition are prohibited.
- Maintain best practical housekeeping and maintenance practices at the highest possible standards to reduce the quantity of organic compounds emissions. Good housekeeping shall include, but not be limited to, the practices listed in LAC 33:III.2113.A.1-5.
- Failure to pay the prescribed application fee or annual fee as provided herein, within 90 days after the due date, will constitute a violation of these regulations and shall subject the person to applicable enforcement actions under the Louisiana Environmental Quality Act including, but not limited to, revocation or suspension of the applicable permit, license, registration, or variance.
- Nitrogen oxides: NO_x, Total <=97.25 tons/yr. Noncompliance with this limitation is a reportable violation of the permit. Notify the Office of Environmental Compliance, Enforcement Division if total NO_x emissions exceeds the maximum listed in this specific condition for any twelve consecutive month period.
- Nitrogen oxides: NO_x, Total Submit report: Due annually, by the 31st of March. Report the total VOC for the preceding calendar year to the Office of Environmental Compliance, Enforcement Division.
- Nitrogen oxides: NO_x, Total recordkeeping by electronic or hard copy monthly. Keep records of the total VOC emissions each month, as well as the total NO_x emissions for the last twelve months. Make records available for inspection by DEQ personnel.
- Any application form, report, or compliance certification submitted under this Chapter shall contain certification by a responsible official of truth, accuracy, and completeness. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information contained in the application are true, accurate, and complete.
- Submit supplementary facts or corrected information: Due promptly upon becoming aware of failure to submit or incorrect submittal regarding permit applications. In addition, provide information as necessary to address any requirements that become applicable to the source after the date of filing a complete application but prior to release of a proposed permit.
- Submit standby plan for the reduction or elimination of emissions during an Air Pollution Alert, Air Pollution Warning, or Air Pollution Emergency: Due within 30 days after requested by the administrative authority.
- During an Air Pollution Alert, Air Pollution Warning or Air Pollution Emergency, make the standby plan available on the premises to any person authorized by the department to enforce these regulations.

Additional Info

Binh Nguyen

From: BReed@jwoperating.com
Sent: Wednesday, June 11, 2008 2:16 PM
To: Binh Nguyen
Subject: FW: Expedited Permit for AI 32031 145 722
Attachments: Sec 7 Annual Emission Rates.pdf, Sec 7 Bass Frierson Glycalc.pdf, Page 6 Application .pdf

Also attached is a corrected page 6 of application for approval of air emissions. Pls replace existing page. Thank you.

From: Brenda Reed
Sent: Wednesday, June 11, 2008 2:06 PM
To: 'Binh Nguyen'
Subject: RE: Expedited Permit for AI 32031 145 722

Good afternoon to you Binh,

1. First, let me ask you to replace the Annual Emission Rates page in my application package. It is the first attachment to this email. I made a slight mistake in the VOC, but it is correct on the EIQ sheets.
2. GRI-GLYCalc run attached.
3. C-1 and C-2 do not have catalytic converters. They are lean burn engines that were manufactured in July, 2004 and installed in November, 2006. C-3 does not have a catalytic converter. It is a lean burn engine that was manufactured in August 2004 and installed in November, 2007. C-4 and C-5 both have catalytic converters and were both manufactured in May, 2005. They will be installed in July, 2008.
4. This facility does not have a J-T unit, therefore KKK does not apply.
5. The facilities that are contiguous with this facility, except for the Frierson 6 #10 which has not been drilled at this time, do not have AI numbers, as they fall under Act 918 Statutory Exemptions. The only possible emissions from the contiguous sources would be VOC from fugitives, and at a maximum would emit 0.11 VOCs for each facility.

Hope this answered all your questions.

Brenda Reed
Supervisor Regulatory and Compliance
J-W OPERATING COMPANY

From: Binh Nguyen [mailto:Binh.Nguyen@LA.GOV]
Sent: Wednesday, June 11, 2008 11:51 AM
To: Brenda Reed
Subject: RE: Expedited Permit for AI 32031 145 722

Good morning Brenda,

I've been assigned to another expedited permit that belongs to your company (AI 145722-Section 7 compressor Site).

Same as the other permit, I would like the following additional information:

1. GRI-GLYCalc for the dehydration unit
2. The Manufacture date of two new compressor engines
3. Do the existing compressor engines have catalytic converters? When did they construct/modified/reconstructed?
4. Does this facility have J-T-unit? (KKK applied or not?)
5. Since you mentioned in the application that this facility is contiguous to other facilities, could you please provide me the AI numbers and the emissions of those contiguous facilities?

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GRI-GLYCalc VERSION 4.0 - AGGREGATE CALCULATIONS REPORT

Case Name: Bass Frierson #1 Comp Station

File Name: C:\Program Files\GRI-GLYCalc4\Bass Frierson #1 Comp Site.ddf
Date: January 30, 2007

DESCRIPTION:

Description: Wet Gas: .27 MMSCFD @ 60 deg F. ~ 900 PSI

Annual Hours of Operation: 8760.0 hours/yr

EMISSIONS REPORTS:

CONTROLLED REGENERATOR EMISSIONS

Component	lbs/hr	lbs/day	tons/yr
Methane	0.0389	0.933	0.1704
Ethane	0.0348	0.836	0.1525
Propane	0.0383	0.918	0.1676
Isobutane	0.0152	0.366	0.0668
n-Butane	0.0245	0.587	0.1072
Isopentane	0.0060	0.145	0.0265
n-Pentane	0.0086	0.206	0.0376
n-Hexane	0.0027	0.065	0.0119
Cyclohexane	0.0083	0.199	0.0363
Heptanes	0.0006	0.014	0.0025
Methylcyclohexane	0.0018	0.044	0.0081
2,2,4-Trimethylpentane	0.0014	0.033	0.0060
Benzene	0.0307	0.736	0.1343
Toluene	0.0270	0.647	0.1181
Ethylbenzene	0.0002	0.005	0.0010
Xylenes	0.0024	0.057	0.0103
C8+ Heavies	<0.0001	<0.001	<0.0001
Total Emissions	0.2413	5.792	1.0570
Total Hydrocarbon Emissions	0.2413	5.792	1.0570
Total VOC Emissions	0.1676	4.023	0.7342
Total HAP Emissions	0.0643	1.543	0.2816
Total BTEX Emissions	0.0602	1.445	0.2637

exempt
HHC

UNCONTROLLED REGENERATOR EMISSIONS

Component	lbs/hr	lbs/day	tons/yr
Methane	0.0398	0.955	0.1743
Ethane	0.0397	0.952	0.1737
Propane	0.0703	1.688	0.3080
Isobutane	0.0437	1.048	0.1912
n-Butane	0.0948	2.276	0.4153
Isopentane	0.0634	1.523	0.2779
n-Pentane	0.0587	1.406	0.2570
n-Hexane	0.0829	1.990	0.3631
Cyclohexane	0.3580	8.593	1.5682

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Heptanes	0.0527	1.266	0.2310
Methylcyclohexane	0.1767	4.241	0.7739
2, 2, 4-Trimethylpentane	0.1181	2.834	0.5172
Benzene	1.9402	46.564	8.4979
Toluene	5.2224	125.338	22.8742
Ethylbenzene	0.1581	3.795	0.6926
Xylenes	2.0908	50.179	9.1576
C8+ Heavies	0.1176	2.821	0.5149
Total Emissions	10.7279	257.469	46.9881
Total Hydrocarbon Emissions	10.7279	257.469	46.9881
Total VOC Emissions	10.6484	255.562	46.6401
Total HAP Emissions	9.6125	230.700	42.1027
Total BTEX Emissions	9.4115	225.876	41.2224

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FLASH TANK OFF GAS

Component	lbs/hr	lbs/day	tons/yr
Methane	1.0257	24.616	4.4925
Ethane	0.2698	6.476	1.1818
Propane	0.1829	4.390	0.8012
Isobutane	0.0704	1.691	0.3086
n-Butane	0.1112	2.668	0.4869
Isopentane	0.0587	1.408	0.2569
n-Pentane	0.0454	1.090	0.1989
n-Hexane	0.0322	0.773	0.1411
Cyclohexane	0.0374	0.898	0.1639
Heptanes	0.0094	0.225	0.0411
Methylcyclohexane	0.0135	0.324	0.0591
2, 2, 4-Trimethylpentane	0.0424	1.018	0.1857
Benzene	0.0227	0.545	0.0995
Toluene	0.0363	0.870	0.1588
Ethylbenzene	0.0006	0.014	0.0025
Xylenes	0.0050	0.121	0.0220
C8+ Heavies	0.0020	0.048	0.0088
Total Emissions	1.9656	47.174	8.6092
Total Hydrocarbon Emissions	1.9656	47.174	8.6092
Total VOC Emissions	0.6701	16.082	2.9349
Total HAP Emissions	0.1392	3.341	0.6096
Total BTEX Emissions	0.0646	1.550	0.2828

EQUIPMENT REPORTS:**CONDENSER**

Condenser Outlet Temperature:	80.00 deg. F
Condenser Pressure:	15.00 psia
Condenser Duty:	2.17e-002 MM BTU/hr
Hydrocarbon Recovery:	0.85 bbls/day
Produced Water:	1.27 bbls/day

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VOC Control Efficiency: 98.43 %
 HAP Control Efficiency: 99.33 %
 BTEX Control Efficiency: 99.36 %
 Dissolved Hydrocarbons in Water: 713.02 mg/L

Component	Emitted	Condensed
Water	0.05%	99.95%
Carbon Dioxide	88.76%	11.24%
Nitrogen	93.00%	7.00%
Methane	97.76%	2.24%
Ethane	87.80%	12.20%
Propane	54.41%	45.59%
Isobutane	34.93%	65.07%
n-Butane	25.81%	74.19%
Isopentane	9.52%	90.48%
n-Pentane	14.63%	85.37%
n-Hexane	3.27%	96.73%
Cyclohexane	2.32%	97.68%
Heptanes	1.07%	98.93%
Methylcyclohexane	1.04%	98.96%
2,2,4-Trimethylpentane	1.16%	98.84%
Benzene	1.58%	98.42%
Toluene	0.52%	99.48%
Ethylbenzene	0.14%	99.86%
Xylenes	0.11%	99.89%
C8+ Heavies	0.00%	100.00%

ABSORBER

NOTE: Because the Calculated Absorber Stages was below the minimum allowed, GRI-GLYCalc has set the number of Absorber Stages to 1.25 and has calculated a revised Dry Gas Dew Point.

Calculated Absorber Stages: 1.25
 Calculated Dry Gas Dew Point: 1.65 lbs. H2O/MMSCF
 Temperature: 60.0 deg. F
 Pressure: 900.0 psig
 Dry Gas Flow Rate: 27.0000 MMSCF/day
 Glycol Losses with Dry Gas: 0.0649 lb/hr
 Wet Gas Water Content: Saturated
 Calculated Wet Gas Water Content: 18.15 lbs. H2O/MMSCF
 Specified Lean Glycol Recirc. Ratio: 3.00 gal/lb H2O

Component	Remaining in Dry Gas.	Absorbed in Glycol
Water	9.06%	90.94%
Carbon Dioxide	99.96%	0.04%
Nitrogen	100.00%	0.00%
Methane	100.00%	0.00%
Ethane	99.99%	0.01%
Propane	99.99%	0.01%
Isobutane	99.98%	0.02%
n-Butane	99.97%	0.03%
Isopentane	99.97%	0.03%
n-Pentane	99.96%	0.04%

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n-Hexane	99.94%	0.06%
Cyclohexane	99.73%	0.27%
Heptanes	99.89%	0.11%
Methylcyclohexane	99.70%	0.30%
2,2,4-Trimethylpentane	99.96%	0.04%
Benzene	96.88%	3.12%
Toluene	95.18%	4.82%
Ethylbenzene	93.70%	6.30%
Xylenes	90.75%	9.25%
C8+ Heavies	99.88%	0.12%

FLASH TANK

Flash Control: Vented to atmosphere
 Flash Temperature: 95.0 deg. F
 Flash Pressure: .30.0 psig

Component	Left in Glycol.	Removed in Flash Gas
Water	99.98%	0.02%
Carbon Dioxide	36.83%	63.17%
Nitrogen	3.62%	96.38%
Methane	3.73%	96.27%
Ethane	12.82%	87.18%
Propane	27.77%	72.23%
Isobutane	38.26%	61.74%
n-Butane	46.04%	53.96%
Isopentane	52.20%	47.80%
n-Pentane	56.59%	43.41%
n-Hexane	72.16%	27.84%
Cyclohexane	90.84%	9.16%
Heptanes	84.98%	15.02%
Methylcyclohexane	93.19%	6.81%
2,2,4-Trimethylpentane	73.98%	26.02%
Benzene	98.90%	1.10%
Toluene	99.37%	0.63%
Ethylbenzene	99.67%	0.33%
Xylenes	99.79%	0.21%
C8+ Heavies	98.52%	1.48%

REGENERATOR

No Stripping Gas used in regenerator.

Component	Remaining in Glycol	Distilled Overhead
Water	22.14%	77.86%
Carbon Dioxide	0.00%	100.00%
Nitrogen	0.00%	100.00%
Methane	0.00%	100.00%
Ethane	0.00%	100.00%
Propane	0.00%	100.00%
Isobutane	0.00%	100.00%
n-Butane	0.00%	100.00%

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Isopentane	0.96%	99.04%
n-Pentane	0.88%	99.12%
n-Hexane	0.69%	99.31%
Cyclohexane	3.52%	96.48%
Heptanes	0.59%	99.41%
Methylcyclohexane	4.29%	95.71%
2,2,4-Trimethylpentane	2.03%	97.97%
Benzene	5.06%	94.94%
Toluene	7.95%	92.05%
Ethylbenzene	10.43%	89.57%
Xylenes	12.91%	87.09%
C8+ Heavies	12.17%	87.83%

STREAM REPORTS:

WET GAS STREAM

Temperature: 60.00 deg. F
 Pressure: 914.70 psia
 Flow Rate: 1.13e+006 scfh

Component	Conc. (vol%)	Loading (lb/hr)
Water	3.82e-002	2.04e+001
Carbon Dioxide	1.89e+000	2.47e+003
Nitrogen	1.47e-001	1.22e+002
Methane	9.06e+001	4.31e+004
Ethane	4.38e+000	3.91e+003
Propane	1.41e+000	1.84e+003
Isobutane	3.37e-001	5.81e+002
n-Butane	4.46e-001	7.69e+002
Isopentane	2.08e-001	4.45e+002
n-Pentane	1.38e-001	2.96e+002
n-Hexane	7.44e-002	1.90e+002
Cyclohexane	5.86e-002	1.46e+002
Heptanes	1.85e-002	5.50e+001
Methylcyclohexane	2.21e-002	6.43e+001
2,2,4-Trimethylpentane	1.07e-001	3.61e+002
Benzene	2.72e-002	6.30e+001
Toluene	3.99e-002	1.09e+002
Ethylbenzene	8.00e-004	2.52e+000
Xylenes	7.20e-003	2.27e+001
C8+ Heavies	1.92e-002	9.70e+001
Total Components	100.00	5.47e+004

DRY GAS STREAM

Temperature: 60.00 deg. F
 Pressure: 914.70 psia
 Flow Rate: 1.13e+006 scfh

Component	Conc.	Loading
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	(vol%)	(lb/hr)
Water	3.47e-003	1.85e+000
Carbon Dioxide	1.89e+000	2.47e+003
Nitrogen	1.47e-001	1.22e+002
Methane	9.07e+001	4.31e+004
Ethane	4.39e+000	3.91e+003
Propane	1.41e+000	1.84e+003
Isobutane	3.37e-001	5.81e+002
n-Butane	4.46e-001	7.69e+002
Isopentane	2.08e-001	4.44e+002
n-Pentane	1.38e-001	2.96e+002
n-Hexane	7.44e-002	1.90e+002
Cyclohexane	5.84e-002	1.46e+002
Heptanes	1.85e-002	5.49e+001
Methylcyclohexane	2.20e-002	6.42e+001
2,2,4-Trimethylpentane	1.07e-001	3.61e+002
Benzene	2.64e-002	6.10e+001
Toluene	3.80e-002	1.04e+002
Ethylbenzene	7.50e-004	2.36e+000
Xylenes	6.53e-003	2.06e+001
C8+ Heavies	1.92e-002	9.69e+001
Total Components	100.00	5.47e+004

LEAN GLYCOL STREAM

Temperature: 60.00 deg. F
 Flow Rate: 6.25e-001 gpm

Component	Conc. (wt%)	Loading (lb/hr)
TEG	9.82e+001	3.45e+002
Water	1.50e+000	5.28e+000
Carbon Dioxide	2.92e-011	1.03e-010
Nitrogen	9.96e-014	3.50e-013
Methane	1.02e-017	3.58e-017
Ethane	4.16e-008	1.46e-007
Propane	2.93e-009	1.03e-008
Isobutane	9.74e-010	3.42e-009
n-Butane	1.45e-009	5.11e-009
Isopentane	1.75e-004	6.14e-004
n-Pentane	1.49e-004	5.23e-004
n-Hexane	1.65e-004	5.79e-004
Cyclohexane	3.72e-003	1.31e-002
Heptanes	8.88e-005	3.12e-004
Methylcyclohexane	2.25e-003	7.93e-003
2,2,4-Trimethylpentane	6.95e-004	2.44e-003
Benzene	2.94e-002	1.03e-001
Toluene	1.28e-001	4.51e-001
Ethylbenzene	5.24e-003	1.84e-002
Xylenes	8.82e-002	3.10e-001
C8+ Heavies	4.63e-003	1.63e-002
Total Components	100.00	3.52e+002

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RICH GLYCOL STREAM

Temperature: 60.00 deg. F
 Pressure: 914.70 psia
 Flow Rate: 6.92e-001 gpm
 NOTE: Stream has more than one phase.

Component	Conc. (wt%)	Loading (lb/hr)
TEG	9.00e+001	3.45e+002
Water	6.22e+000	2.39e+001
Carbon Dioxide	2.68e-001	1.03e+000
Nitrogen	9.09e-004	3.49e-003
Methane	2.78e-001	1.07e+000
Ethane	8.06e-002	3.09e-001
Propane	6.60e-002	2.53e-001
Isobutane	2.97e-002	1.14e-001
n-Butane	5.37e-002	2.06e-001
Isopentane	3.20e-002	1.23e-001
n-Pentane	2.73e-002	1.05e-001
n-Hexane	3.01e-002	1.16e-001
Cyclohexane	1.06e-001	4.09e-001
Heptanes	1.63e-002	6.24e-002
Methylcyclohexane	5.16e-002	1.98e-001
2,2,4-Trimethylpentane	4.25e-002	1.63e-001
Benzene	5.38e-001	2.07e+000
Toluene	1.49e+000	5.71e+000
Ethylbenzene	4.62e-002	1.77e-001
Xylenes	6.27e-001	2.41e+000
C8+ Heavies	3.54e-002	1.36e-001
Total Components	100.00	3.84e+002

FLASH TANK OFF GAS STREAM

Temperature: 95.00 deg. F
 Pressure: 44.70 psia
 Flow Rate: 3.75e+001 scfh

Component	Conc. (vol%)	Loading (lb/hr)
Water	2.83e-001	5.04e-003
Carbon Dioxide	1.49e+001	6.49e-001
Nitrogen	1.21e-001	3.36e-003
Methane	6.46e+001	1.03e+000
Ethane	9.07e+000	2.70e-001
Propane	4.19e+000	1.83e-001
Isobutane	1.23e+000	7.04e-002
n-Butane	1.93e+000	1.11e-001
Isopentane	8.22e-001	5.87e-002
n-Pentane	6.36e-001	4.54e-002
n-Hexane	3.78e-001	3.22e-002
Cyclohexane	4.49e-001	3.74e-002
Heptanes	9.46e-002	9.38e-003
Methylcyclohexane	1.39e-001	1.35e-002
2,2,4-Trimethylpentane	3.75e-001	4.24e-002

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Benzene	2.94e-001	2.27e-002
Toluene	3.98e-001	3.63e-002
Ethylbenzene	5.50e-003	5.78e-004
Xylenes	4.79e-002	5.03e-003
C8+ Heavies	1.19e-002	2.01e-003
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Total Components	100.00	2.62e+000

FLASH TANK GLYCOL STREAM

Temperature: 95.00 deg. F
 Flow Rate: 6.86e-001 gpm

Component	Conc. (wt%)	Loading (lb/hr)
TEG	9.06e+001	3.45e+002
Water	6.26e+000	2.39e+001
Carbon Dioxide	9.92e-002	3.78e-001
Nitrogen	3.31e-005	1.26e-004
Methane	1.04e-002	3.98e-002
Ethane	1.04e-002	3.97e-002
Propane	1.84e-002	7.03e-002
Isobutane	1.15e-002	4.37e-002
n-Butane	2.49e-002	9.48e-002
Isopentane	1.68e-002	6.41e-002
n-Pentane	1.55e-002	5.92e-002
n-Hexane	2.19e-002	8.35e-002
Cyclohexane	9.74e-002	3.71e-001
Heptanes	1.39e-002	5.31e-002
Methylcyclohexane	4.84e-002	1.85e-001
2,2,4-Trimethylpentane	3.16e-002	1.21e-001
Benzene	5.36e-001	2.04e+000
Toluene	1.49e+000	5.67e+000
Ethylbenzene	4.63e-002	1.77e-001
Xylenes	6.30e-001	2.40e+000
C8+ Heavies	3.51e-002	1.34e-001
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Total Components	100.00	3.81e+002

REGENERATOR OVERHEADS STREAM

Temperature: 212.00 deg. F
 Pressure: 14.70 psia
 Flow Rate: 4.41e+002 scfh

Component	Conc. (vol%)	Loading (lb/hr)
Water	8.88e+001	1.86e+001
Carbon Dioxide	7.40e-001	3.78e-001
Nitrogen	3.88e-004	1.26e-004
Methane	2.14e-001	3.98e-002
Ethane	1.14e-001	3.97e-002
Propane	1.37e-001	7.03e-002
Isobutane	6.47e-002	4.37e-002
n-Butane	1.40e-001	9.48e-002

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Isopentane	7.57e-002	6.34e-002
n-Pentane	7.00e-002	5.87e-002
n-Hexane	8.28e-002	8.29e-002
Cyclohexane	3.66e-001	3.58e-001
Heptanes	4.53e-002	5.27e-002
Methylcyclohexane	1.55e-001	1.77e-001
2,2,4-Trimethylpentane	8.90e-002	1.18e-001
Benzene	2.14e+000	1.94e+000
Toluene	4.88e+000	5.22e+000
Ethylbenzene	1.28e-001	1.58e-001
Xylenes	1.70e+000	2.09e+000
C8+ Heavies	5.94e-002	1.18e-001

Total Components	100.00	2.97e+001

CONDENSER VENT GAS STREAM

Temperature: 80.00 deg. F
 Pressure: 15.00 psia
 Flow Rate: 5.44e+000 scfh

Component	Conc. (vol%)	Loading (lb/hr)
Water	3.44e+000	8.88e-003
Carbon Dioxide	5.32e+001	3.36e-001
Nitrogen	2.92e-002	1.17e-004
Methane	1.69e+001	3.89e-002
Ethane	8.08e+000	3.48e-002

Propane	6.05e+000	3.83e-002
Isobutane	1.83e+000	1.52e-002
n-Butane	2.94e+000	2.45e-002
Isopentane	5.84e-001	6.04e-003
n-Pentane	8.30e-001	8.58e-003

n-Hexane	2.20e-001	2.71e-003
Cyclohexane	6.87e-001	8.29e-003
Heptanes	3.94e-002	5.66e-004
Methylcyclohexane	1.31e-001	1.84e-003
2,2,4-Trimethylpentane	8.39e-002	1.37e-003

Benzene	2.74e+000	3.07e-002
Toluene	2.04e+000	2.70e-002
Ethylbenzene	1.50e-002	2.29e-004
Xylenes	1.55e-001	2.36e-003
C8+ Heavies	1.55e-004	3.79e-006

Total Components	100.00	5.86e-001

CONDENSER PRODUCED WATER STREAM

Temperature: 80.00 deg. F
 Flow Rate: 3.72e-002 gpm

Component	Conc. (wt%)	Loading (lb/hr)	(ppm)
Water	9.99e+001	1.86e+001	998515.
Carbon Dioxide	7.72e-002	1.44e-002	.772.
Nitrogen	5.35e-007	9.95e-008	0.

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Methane	3.77e-004	7.01e-005	4.
Ethane	4.40e-004	8.17e-005	4.
Propane	3.41e-004	6.33e-005	3.
Isobutane	7.79e-005	1.45e-005	1.
n-Butane	1.75e-004	3.24e-005	2.
Isopentane	3.23e-005	6.01e-006	0.
n-Pentane	5.08e-005	9.43e-006	1.
n-Hexane	1.45e-005	2.70e-006	0.
Cyclohexane	2.88e-004	5.35e-005	3.
Heptanes	1.78e-006	3.31e-007	0.
Methylcyclohexane	3.18e-005	5.90e-006	0.
2,2,4-Trimethylpentane	2.79e-006	5.18e-007	0.
Benzene	3.72e-002	6.92e-003	372.
Toluene	2.91e-002	5.40e-003	291.
Ethylbenzene	1.99e-004	3.70e-005	2.
Xylenes	2.99e-003	5.57e-004	30.
C8+ Heavies	4.59e-009	8.54e-010	0.
Total Components	100.00	1.86e+001	1000000.

CONDENSER RECOVERED OIL STREAM

Temperature: 80.00 deg. F
 Flow Rate: 2.47e-002 gpm

Component	Conc. (wt%)	Loading (lb/hr)
Water	4.68e-002	4.92e-003
Carbon Dioxide	2.68e-001	2.81e-002
Nitrogen	8.31e-005	8.73e-006
Methane	7.83e-003	8.23e-004
Ethane	4.53e-002	4.76e-003
Propane	3.05e-001	3.20e-002
Isobutane	2.70e-001	2.84e-002
n-Butane	6.69e-001	7.03e-002
Isopentane	5.46e-001	5.74e-002
n-Pentane	4.77e-001	5.01e-002
n-Hexane	7.63e-001	8.02e-002
Cyclohexane	3.33e+000	3.50e-001
Heptanes	4.97e-001	5.22e-002
Methylcyclohexane	1.66e+000	1.75e-001
2,2,4-Trimethylpentane	1.11e+000	1.17e-001
Benzene	1.81e+001	1.90e+000
Toluene	4.94e+001	5.19e+000
Ethylbenzene	1.50e+000	1.58e-001
Xylenes	1.99e+001	2.09e+000
C8+ Heavies	1.12e+000	1.18e-001
Total Components	100.00	1.05e+001